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A BUFO HOLOLIUS B CALLULA OLIVACEA C. PEDOSTIBES TUBERCULOSUS

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1875.] DR. A. GÜNTHER ON INDIAN REPTILES.

Mr. A. H. Garrod read a paper on the structure of the Manatee (Manatus americanus) lately living in the Society's Gardens. Mr. Garrod drew attention to a peculiarity in the mechanism of the upper lip, by which that structure is capable, through the combined transverse movements of the lateral pads which compose it, of employing the lips as an independent prehensile organ. 'The size of the blood-disks was also given, together with drawings of the external and internal conformation of the brain.

This paper will be printed in the Society's Transactions.

The following papers were read :---

1. Third Report on Collections of Indian Reptiles obtained by the British Museum. By Dr. Albert GÜNTHER, V.P.R.S., V.P.Z.S.

[Received October 19, 1875.]

(Plates LXIII.-LXVI.)

In my second Report (see above, p. 224) I have treated of Lizards and Snakes collected by Lieut.-Col. Beddome and the late Mr. Jerdon. The present paper is a continuation of the account of these collections, and treats of the Batrachians.

RANA GRACILIS (Wiegm.).

I consider *Rana agricola* (Jerd.) and *Rana nilgirica* (Jerd.) varieties of this species, which is remarkable for the amount of variation in the length of the limbs and toes.

RANA TIGRINA (Daud.).

A specimen named by Mr. Jerdon, and representing his "Rana crassa" belongs to this species.

RANA LIEBIGII (Gthr.).

I regard Rana sikkimensis (Jerd.) as not specifically distinct from Rana liebigii.

RANA VERRUCOSA, Sp. n.

Snout of moderate length, somewhat pointed, with indistinct canthus rostralis; tympanum rather small, smaller than the eye. Inner nares not quite so wide as the Eustachian tubes. Vomerine teeth in two oblique series, each commencing from the front margin of the inner nostril. Upper parts covered with numerous larger and smaller warts, tubercles, and short folds. Limbs well developed, the distance between vent and heel being equal to the length of the body. Tips of the fingers and toes scarcely swollen; the fourth toe one third longer than the fifth. Toes completely webbed; but the web does not extend to the extremity of the fourth toe. Metatarsus with an elongate inner and a minute outer tubercle. Brownish, marbled with darker, sometimes with a broad yellow vertebral band. Limbs with cross bars; hinder part of the thighs black, with white vermiculated lines and spots. Lower parts whitish, throat sometimes marbled with brown.

Several specimens were collected by Lieut.-Col. Beddome in Malabar. The body of the largest is 60 millims. long; length of hind limb 103 millims.

RANA PYGMÆA, sp. n.

Similar in habit to a young Rana kuhlii. Head much depressed, with very short, rounded snout; canthus rostralis absent; eyes prominent, obliquely directed forwards. Skin smooth, with a few irregular folds behind the head. Tympanum hidden; inner nares and Eustachian tubes small. Vomerine teeth in two short groups close together, behind the inner nostrils. Limbs short; fingers and toes short, the latter half-webbed. One metatarsal tubercle. Upper parts nearly uniformly black or blackish brown, the lower dull yellow.

A minute species, the body of an adult female with mature ova in the oviduct being only 25 millims. long; length of hind limb 31 millims.

Several specimens were collected by Lieut.-Col. Beddome in Malabar.

RANA HEXADACTYLA (Less.).

The specimens named Rana vittata by Lieut.-Col. Beddome are the young of this species. Three other young specimens were presented to the Museum by Mr. Jerdon under the name of "Pyxicephalus pluvialis, Jerd."

XENOPHRYS MONTICOLA (Gthr.).

"Xenophrys gigas, Jerd.," is the adult of this species.

DIPLOPELMA.

In Mr. Jerdon's collection there are specimens which he has identified with the two species formerly named by him "Engystoma rubrum" and "Engystoma carnaticum." Those to which he has applied the former name are, in my opinion, the same as *D. orna*tum (D. and B., Gthr.). The others, four in number, are from Assam; and two of them I am inclined to refer likewise to *D. orna*tum, whilst the other two are identical with *D. pulchrum* (Hallow.).

NANNOPHRYS CEYLONENSIS (Gthr.).

Trachycephalus ceylanicus, Ferguson, Ann. & Mag. Nat. Hist. 1875, vol. xv., is identical with this species.

ANSONIA ORNATA, sp. n. (Plate LXIII. fig. A.)

Anterior half of the back finely tubercular, the remainder smooth. Tympanum very distinct, about half the size of the eye. Fingers free, the first much shorter than the second. Toes short, broadly webbed; two small metatarsal tubercles, no tarsal fold. Black; upper side of the head generally grey or with some greyish spots. Throat, abdomen, and the lower side of the legs with large bright yellow spots.

Several specimens were obtained by Lieut.-Col. Beddome from the Brumagherries.

T . T		mmm
Length o	f body	30
,,	hind limb.	44
,,	tarsus	8
>>	fourth toe	12

BUFO BEDDOMII, sp. n.

Crown broad, flat, without bony enlargement. Snout short, projecting, with well marked canthus rostralis. Limbs of moderate length. The first and fourth fingers a little longer than the second. Toes broadly webbed. Metatarsus with two small callosities; no fold along the tarsus. All the upper parts covered with rough tubercles; parotoid ovate; about twice as long as broad. Tympanum very small; Eustachian tubes much narrower than choanæ. Above dark brown, with some indistinct black spots; the two inner fingers and the three inner toes whitish above. Lower parts whitish, densely marbled with black.

One specimen was obtained by Col. Beddome in Malabar; it is 43 millims. long; hind limb 61 millims.

BUFO HOLOLIUS, sp. n. (Plate LXIV. fig. A.)

Crown broad, flat, without bony enlargement. Snout short, depressed, projecting, with well marked canthus rostralis. Limbs and fingers rather short; the fourth finger a little longer than the second. Toes short, webbed at the base only. Metatarsus with two small callosities; no fold along the edge of the tarsus. Back with very flat, smooth, small glandular patches; also the parotoid is flat, scarcely raised above the level of the smooth skin. Tympanum perfectly circular, very distinct, not much smaller than the eye. Inner nares and Eustachian tubes narrow. Upper parts olivecoloured, marbled with brown; lower parts whitish.

One specimen was found by Col. Beddome in Malabar; it is 38 millims. long; hind limb 45 millims.

HYLORANA TEMPORALIS (Gthr.).

Specimens collected by Col. Beddome in the Anamallays, and determined as "*Hylorana flavescens*" by Mr. Jerdon in 1870, prove to differ from *H. temporalis* only by having the brown temporal band extended on to the sides of the body. There is no evidence whatever that this is the frog "with the yellow sides" named "*Rana flavescens*" by Mr. Jerdon in 1854.

POLYPEDATES CHLORONOTUS, sp. n. (Plate LXV. fig. A.) In habit somewhat resembling a Hylorana.

Shout of moderate length, somewhat pointed, with distinct canthus rostralis, and vertical, concave loreal region. Eve large. Tympanum one third the size of the eve in females, but larger in males. Limbs strong; disks well developed, those of the fingers rather larger than those of the toes. Fingers not webbed, the first rather longer than the second, and equal in length to the fourth, the third being the longest. Toes completely webbed; a single elongate metatarsal tubercle. Skin quite smooth, not adherent to the surface of the head; no indication of a curved osseous crest. Choanæ and Eustachian tubes of moderate width; vomerine teeth in two oblique series between the choanæ. Tongue without free papilla. Male with an external vocal sac behind each angle of the month. Upper surface of the head and back green (sometimes with some irregular black spots); sides of the head and body and the limbs dark brown, this colour being sharply defined towards the green of the back ; lower parts whitish, with the throat and chest brownish. A white line along the upper lip towards the axil. Loins and hind part of the thighs marbled with whitish. Legs with dark cross bars above.

	Male. millim.	Female. millim.
Toursthe of header		93
Length of body		95
,, hind limb	93	175
,, tarsus	15	28
,, fourth toe	27	50

Several specimens were brought by Mr. Jerdon from Darjeeling.

This is the frog mentioned by Mr. Jerdon (Proc. As. Soc. 1870, p. 83) and described by Dr. Anderson (Proc. Zool. Soc. 1871, p. 208) as *Polypedates smaragdinus* of Blyth; but there is no evidence whatever that Blyth had this species before him; he merely says (Journ.As. Soc. Beng. xxi. p. 355):—"A tree-frog from the Naga hills, Assam (*P. smaragdinus*, nobis). Length of the body $3\frac{1}{4}$ inches, hind limb $5\frac{1}{4}$ inches. Wholly green above, changing in spirit to livid blue, underparts white." This vague diagnosis may apply to very different species, and certainly better to some than to the present frog from Darjeeling.

POLYPEDATES FORMOSUS, sp. n. (Plate LXV. fig. B.)

Habit similar to that of P. afghana.

Snout flat, short, rounded, with distinct canthus rostralis. Loreal region subvertical, with a very slight impression. Eye of moderate size; tympanum very small, only as large as the disk of the third finger. Limbs slender; fingers exceedingly long: the second longer than the first, but shorter than the fourth, the third exceeding the others in length; fingers not webbed, with large disks, larger than those of the toes. Toes fully webbed; metatarsal tubercle indistinct. Skin quite smooth. Choanæ and Eustachian tubes narrow; vomerine teeth in two very short groups between the choanæ. Tongue without free papilla. Upper parts green, mar-

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bled with black, the black spots enclosing a number of small whitish dots. Legs and toes with black white-dotted cross bars. Lower parts light greenish, irregularly marbled with brown.

T	C1 1	millim.
Length of	f body	64
>>	third finger	21
• •	hind limb	115
> >	tarsus	19
>>	fourth toe	37

One specimen from Khassya in Mr. Jerdon's collection.

POLYPEDATES JERDONH, Sp. n.

Snout broad, depressed, extremely short and obtuse, with indistinct canthus rostralis, and flat, slanting loreal region. Eye of moderate size; tympanum very small, much smaller than one of the digital disks. Limbs of moderate length; disks large, nearly equally large on the fingers and toes. Fingers conspicuously webbed at the base: second and fourth equal in length, a little longer than the first, and shorter than the third. Toes two thirds webbed; one ovate metatarsal tubercle. Skin nearly smooth above, granular below. Choanæ and Eustachian tubes narrow; vomerine teeth in two oblique series between the choanæ. No free papilla on the tongue. Upper parts brownish grey; forehead and an irregular broad band on each side whitish. Whitish below, throat with some brownish spots; anterior and posterior sides of the femur nearly colourless. Dark bars across the legs irregular and sometimes confluent.

Length of	f body	
**	hind limb	68
>>	tarsus	- 11
,,	fourth toe	22

Two specimens from Darjeeling, in Mr. Jerdon's collection.

POLYPEDATES BEDDOMII, sp. n. (Plate LXIII. fig. B.)

Habit similar to that of P. maculatus.

Snout flat, moderately long, rather obtuse, with distinct canthus rostralis. Loreal region flat, slanting. Eye rather large; tympanum at least half as large as the eye. Limbs strong and rather long; second finger rather shorter than first, which nearly equals the fourth; third longest of all. Fingers without any web, but with the disks well developed. Toes two thirds webbed, the cutaneous fold reaching to the disks, except in the fourth toe, in which it extends to the antepenultimate joint only. Metatarsus with an indistinct, elongate tubercle. Skin of the back with short longitudinal folds; a glandular curved fold from behind the orbit above the tympanum, to the armpit. Choanæ and Eustachian tubes rather small; vomerine teeth in two short, scarcely oblique series, between the choanæ. A long, free, pointed, conical papilla on the middle of the tongue *. Upper parts light brownish olive, or pinkish, with some very obscure spots; a dark cross band between the eyes; a black band along the canthus rostralis, widening behind the eye, so as to cover the whole tympanum; legs obscurely barred; anterior and posterior sides of the thighs finely mottled with black.

		Spec. A. millim.	Spee. B. millim.
Length of	' body	55	45
	hind limb	115	85
21	tarsus	11	13
,,	fourth toe	30	24

Lieut.-Col. Beddome has collected specimens of this frog in Malabar and Travancore, in the Anamallays, and at Sevagherry.

POLYPEDATES BRACHYTARSUS, sp. n.

Closely allied to P. beddomii, but with a much shorter tarsus. Snout flat, somewhat pointed, with indistinct canthus rostralis; loreal region flat, slanting. Eye rather large; tympanum not quite half as large as the eye. Limbs of moderate length. Fingers without any web, and with moderately developed disks : the first, second, and fourth nearly equal in length, the third being the longest. Toes two thirds webbed, the cutaneous fold reaching to the disks, except in the fourth toe, in which it extends to the antepenultimate joint only. Metatarsus with a small indistinct tubercle. Skin of the back with short longitudinal folds; a glandular curved fold from behind the orbit, above the tympanum, to the armpit. Choanæ and Eustachian tubes of moderate size; vomerine teeth in two short oblique series. A free, pointed papilla in the middle of the tongue. Upper parts brown, mottled with darker; a broad, whitish, well-defined longitudinal band along the middle of the back to the end of the snout; an interocular brown band slightly encroaches upon the white band. Upper sides of the legs barred as usual; anterior and posterior sides of the thighs finely mottled with brown.

	Spec. A. millim.	Spec. B. millim.
Length of body	55	38
,, hind limb	99	58
,, tarsus	15	10
,, fourth toe	26	17

Two specimens from Lieut.-Col. Beddome's collection-one from the Anamallays, the other from Sevagherry.

POLYPEDATES BREVIPALMATUS, sp. n.

Habit similar to that of *P. maculatus*.

Snout short, flat, obtuse, with indistinct canthus rostralis; loreal

* I do not find that the presence of this papilla has been noticed before, although it is present in some of the other species of *Polypedates* and *Ixalus*; it is absent in *P. maculatus*. I do not know its function.

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region flat, slanting. Eye of moderate size; tympanum about one third the size of the eye. Limbs of moderate length; disks rather small. Fingers without any web: the second rather longer than the first, and equal to the fourth, the third being the longest. Toes long, with a very short web. Metatarsal tubercle elongate. Skin of the back more or less tubercular, or nearly smooth. Choanæ and Eustachian tubes rather narrow; vomerine teeth in two very short series between the choanæ. A free, pointed papilla in the . middle of the tongue. Upper parts brownish olive, mottled with brown; a dark interocular cross band; legs barred as usual. Lower parts more or less marbled with brown, sometimes brown with white dots, sometimes uniform whitish; anterior and posterior sides of the thighs mottled with brown.

	Spec. A. millim.	Spec. B. millim.
Length of body	44	34
,, hind limb		64
,, tarsus,	14	11
,, fourth toe	25	19

Several specimens were collected by Lieut.-Col. Beddome in Malabar, and one in the Anamallays.

IXALUS VARIABILIS (Gthr.).

This species is not confined to Ceylon, but occurs in various parts of Southern India; it is common at Pycara. The variations of colour are endless, and frequently render the determination a task all the more difficult, as some of them approach closely the distribution of colours in other species. There are specimens with subcrescentic brown bands on the back as in *Polypedates microtympanum*; others have round, milk-white spots about the lips, or on the sides, or all over the back. One variety has the back of a nearly uniform chocolate-brown, and a light-coloured band along each side. A whitish line along the canthus rostralis and superciliary margin is very frequent.

It is possible that the specimens which Mr. Jerdon noticed as *Phyllomedusa* (?) *wynaadensis* belonged to this species. But in a genus in which the distinction of closely allied species is most difficult for the zoologist with the specimens before him, it is impossible to say to which of them a short, insufficient note, penned 25 years ago, refers.

IXALUS GLANDULOSUS (Jerd.).

The specimens we have received from Mr. Theobald of this species were identified by him as the *Ixalus* (?) glandulosa of Jerdon and, as I think, very properly, the sides of the specimens being largely glandular. On the other hand, Col. Beddome has collected specimens of the same species, which were determined by Mr. Jerdon himself as his *Phyllomedusa* (?) tinniens. It will be difficult to decide from the original notes with which these names are accompanied which of the two names ought to be applied, or whether they are synonyms.

IXALUS MONTANUS, sp. n. (Plate LXVI. fig. A.)

Snout short, as long as the eye, obtusely rounded in front, with distinct canthus rostralis. Tongue with a free, pointed papilla in the anterior part of the median line. Tympanum hidden below the skin. Skin nearly smooth, only in adult examples with some indistinct tubercles. The length of the body is more than the distance between vent and heel. No fold along the tarsus; metatarsus with a small, indistinct tubercle; fingers quite free; toes with a very short web; disks of moderate size. Old examples are nearly entirely of a dark purplish brown above, with scarcely any markings, the posterior side of the femur being marbled with black. Other specimens are of a lighter colour, with more or less symmetrical brown markings, the forehead being light-coloured. Abdomen sometimes uniform whitish, sometimes more or less reticulated with black.

Lieut.-Col. Beddome obtained this species on the Kudra Mukh, at an elevation of 6000 feet. One of the largest specimens is 38 millims. long, the length of the hind limb being 55 millims.

IXALUS DIPLOSTICTUS, sp. n. (Plate LXIII. fig. C.)

Snout of moderate length, rather pointed, with distinct canthus rostralis. Tongue with a free, pointed papilla in the anterior part of the median line. Tympanum distinct, not quite half the size of the eye. Skin of the back with some longitudinal folds. The length of the body equals the distance between vent and heel. A cutaneous fold along the tarsus, commencing from the single metatarsal tubercle; fingers quite free; toes slender, with a very short web. Disks small. Pinkish olive-coloured, with a black line along the canthus rostralis, broader behind the eye, and continued over the tympanum. Symmetrical black spots on the sides-one in front of the axil, another on the middle of the side of the trunk, a third above the loin; one or the other of these spots may be absent. Legs with dark cross bars ; anal region and soles of the feet black. Abdomen light-coloured; throat sometimes mottled with brown.

Several specimens were collected by Lieut.-Col. Beddome in Malabar. One of the largest is 27 millims. long, the length of the hind limb being 46 millims.

IXALUS CHALAZODES, sp. n. (Plate LXVI. fig. B.)

Snout short, as long as the eye, obtusely rounded in front, with indistinct canthus rostralis. Tongue with a free, pointed papilla in the anterior part of the median line. Tympanum covered by the skin. Skin smooth; but in the inguinal region there are several series of white, smooth tubercles; several smaller similar tubercles in the anal region and along the tarsus; the length of the body is equal to the distance between vent and heel; no fold along the tarsus; metatarsus with a small indistinct tubercle: fingers quite free; toes half-

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webbed; disks large. Upper parts uniform greenish, the tubercles mentioned showing like white dots. Lower parts yellowish white. The anterior and posterior sides of the femur yellow, slightly marbled with green.

One adult female was obtained by Lieut.-Col. Beddome from Travancore; it is 26 millims. long, the length of the hind limb being 42 millims.

IXALUS JERDONII, Sp. n.

Snout very short, somewhat pointed, with distinct canthus rostralis. Tongue with a free pointed papilla in the anterior part of the median line. Tympauum extremely small, but distinct. Skin smooth. The length of the body is rather more than the distance between vent and heel. No fold along the tarsus; metatarsal tubercle small, indistinct; fingers with a rudimentary web; toes short, half-webbed. Disks moderately developed. Reddish olive, with indistinct darker markings on the back. Femur colourless in front and behind. Lower parts whitish. Length of body 43 millims., of hind limb 63 millims.

A single specimen from Jerdon's collection; on the bottle it was marked as coming from Darjeeling; but it is possible that this is the same specimen mentioned by Jerdon as having been found by him "in the Khasis," Proc. As. Soc. Beng. 1870, p. 85.

IXALUS BEDDOMII, Sp. n.

Allied to *Ixalus femoralis* and *I. pulchellus*, but with a distinct canthus rostralis. Snout short, as long as the eye, obtusely rounded in front. Tongue without free pointed papilla in the middle. Tympanum very small, covered by the skin. Skin on the back smooth. The length of the body is nearly equal to the distance between vent and metatarsal joint. No fold along the tarsus; metatarsus with a small indistinct tubercle; fingers quite free; web between the toes very short; disks well developed. Upper parts uniform green, the lower whitish. The anterior and posterior sides of the femur are perfectly colourless; and only a narrow stripe along its upper side is green.

Several specimens, collected by Lieut.-Col. Beddome in Malabar, are 23 millims. long, the length of the hind limb being 35 millims.

IXALUS STICTOMERUS, sp. n. (Plate LXVI. fig. C.)

Snout of moderate length, rather pointed, with distinct cauthus rostralis. Tongue without free pointed papilla in the middle. Tympanum very small, distinct. Skin smooth. The length of the body is less than the distance between vent and metatarsal tubercle : a cutaneous fold along the tarsus, commencing from the single small metatarsal tubercle ; fingers with rudimentary web; toes of moderate length, half-webbed. Disks moderately developed. Olive-coloured, with indistinct symmetrical markings on the back, an interocular cross bar being darkest. A dark streak along the canthus rostralis is continued over the tympanum. Femur with three very indistinct

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cross bars above, its anterior and posterior sides being blackish minutely marbled with white. Lower parts whitish.

A single specimen was obtained by Lieut. Col. Beddome in Ceylon; it is 34 millims. long, the length of the hind leg being 48 millims.

HYLA ANNECTENS.

The frog mentioned by Mr. Jerdon as Polypedates annectens proves to be a species of Hyla closely allied to H. chinensis.

CALLULA TRIANGULARIS, sp. n.

Closely allied to C. obscura.

Back nearly smooth, with some flat tubercles in the middle. Fingers quite free, with the extremities truncated; toes free, of moderate length, not dilated at the ends. Tarsus without fold; metatarsus with two small tubercles. Olive-coloured above, with a large triangular black spot occupying nearly the whole length of the back, commencing from the occiput. Sides of the head and body, legs, and lower parts black, with olive-coloured spots.

Several specimens were obtained by Lieut.-Col. Beddome in Malabar. The largest are only 31 millims. long, the length of the hind limb being 40 millims. and of the free part of the fourth toe 8 millims.

CALLULA OLIVACEA, sp. n. (Plate LXIV. fig. B.)

Snout short, not very obtuse. Skin of the back nearly smooth, with scarcely any tubercles. Limbs of moderate length. Fingers long, quite free, with broad, truncated disks. Toes with a rudimentary web only, and not dilated at the ends. Tarsus without fold; metatarsal tubercles two, small. Olive-coloured above, marbled with black; lower parts white.

		millim.
Length of	f body	27
,,	third finger	
	hind limb	
	tarsus	6
33	fourth toe	10

Two specimens were found by Lieut.-Col. Beddome on the Yellagherry hills at an altitude of about 2000 feet.

PEDOSTIBES, g. n.

Differing from *Callula* in its physiognomy and habit, which resemble that of *Bufo*. Palate concave, without any transverse ridges.

PEDOSTIBES TUBERCULOSUS, sp. n. (Plate LXIV. fig. C.)

Body rather narrow and slender; head flat above, with short, pointed snout, distinct canthus rostralis, and perpendicular loreal region. Tongue narrow. Choanæ narrow; Eustachian tubes very narrow. Eye rather large. Tympanum extremely small, but distinct. Legs rather slender. Fingers dilated, distinctly webbed at the base, with broad, truncated disks: the first very short, the second nearly twice as long, the fourth longer than the second, and the third the longest. A broad metacarpal tubercle. Toes rather short, broadly webbed, with truncated ends. Two small metatarsal tubercles; no tarsal fold. Skin of the upper parts tubercular, the largest tubercles being arranged along each side of the back; the upper surface of the head nearly smooth. Brownish grey, sides darker. A white band from below the eye to the axil; another white longitudinal band in the lumbar region. Lower parts whitish, spotted with black.

1v		35
Ay	• •	00
d limb	••	48
111 100	• •	10
	d limb	ly d limb sus rth toe

Two specimens from Malabar (Lieut.-Col. Beddome).

GEGENES (g. n. Cœciliid.).

Allied to *Epicrium*, but with the labial groove advanced to the front margin of the mouth, and very indistinct annular folds of the skin. Eyes not visible.

GEGENES CARNOSUS.

Epicrium carnosum, Beddome, Madr. Month. Journ. Med. Sc. 1870, p. 176.

Head depressed, of moderate width; body slender, cylindrical; tail extremely short, obtuse. Eyes not visible; mouth narrow, the labial grooves, or rather pores, are on a level with the front teeth, the nostrils close to the extremity of the snout. Upper jaw projecting beyond the lower. The skin of the body forms about 116 folds between the head and end of the tail; they are all indistinct, and quite obsolete on the back, only the hindmost being perfectly annular. Colour uniform brownish olive.

Two specimens, 7 inches long, were obtained by Lieut.-Col. Beddome from Periah Peak, Wynaad, at an altitude of about 5000 feet.

EXPLANATION OF PLATES LXIII.-LXVI.

PLATE LXIII.

Fig. A. Ansonia ornata, p. 568. B. Polypedates beddomii, p. 571.

PLATE LXIV.

Fig. A. Bufo hololius, p. 569.	Fig. C. Pedostibes tuberculosus, p. 576.
B. Callula olivacea, p. 576.	

PLATE LXV.

Fig. A. Polypedates chloronotus, p. 569. | Fig. B. Polypedates formosus, p. 570.

PLATE LXVI.

Fig. A. Ixalus montanus, p. 574. B. — chalazodes, p. 574.

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